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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,612	03/30/2006	Marc Daneau	273941US2XPCT	4838

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ALEXANDRIA, VA 22314

EXAMINER

TRAN, BINH Q

ART UNIT	PAPER NUMBER
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3748

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

5/10

Office Action Summary	Application No. 10/539,612	Applicant(s) DANEAU ET AL.	
	Examiner BINH Q. TRAN	Art Unit 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-20, 22-24 and 26-28 is/are rejected.
- 7) ☒ Claim(s) 21 and 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to the amendment filed November 09, 2006.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 11-20, 22-24, and 26-28 are rejected under 35 U.S.C. 102 (e) as being anticipated by Huynh et al. (Huynh) (Patent Number 6,871,492).

Regarding claims 11 and 16, Huynh discloses a method and apparatus for control of an internal combustion engine (1) to regenerate an exhaust-gas purifying mechanism (5) disposed on an exhaust line of the engine, comprising: analyzing a composition of exhaust gases (10b) by an oxygen sensor situated solely downstream from the purifying mechanism during a phase of regeneration of the purifying mechanism, and creating a signal for control of the engine based on the analysis to modify the composition of the exhaust gases upstream from the purifying mechanism so that an output signal from the oxygen sensor reaches a setpoint value immediately after the start of the regeneration phase, and substantially maintains the setpoint value through the end of the regeneration phase (t1-t4) (e.g. See Figs. 1-2 and 6; col. 2, lines 53-67; col. 3, lines 1-63; col. 5, lines 38-67; col. 6, lines 1-18).

Regarding claim 12, Huynh further discloses that the oxygen sensor (10b) is of all-or-nothing type (e.g. See col. 5, lines 38-62).

Regarding claim 13, Huynh further discloses that an operating temperature of the oxygen sensor is controlled (e.g. See col. 5, lines 38-67; col. 6, lines 1-18).

Regarding claim 14, Huynh further discloses that the an output signal of the oxygen sensor is compared with a reference value, and a control signal is created to reduce the difference between the output signal of the oxygen sensor and the reference value (e.g. See col. 5, lines 38-67; col. 6, lines 1-18).

Regarding claim 15, Huynh further discloses that the an end stage of the regeneration phase is detected based on the control signal (e.g. See col. 5, lines 38-67; col. 6, lines 1-18).

Regarding claim 17, Huynh further discloses that the oxygen sensor is of all- or-nothing or proportional type (e.g. See col. 5, lines 38-67; col. 6, lines 1-18).

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Regarding claim 18, Huynh further discloses means for controlling an operating temperature of the oxygen sensor (e.g. See col. 5, lines 38-67; col. 6, lines 1-18).

Regarding claim 19, Huynh further discloses a detection module (configured to detect an end of a regeneration phase as a function of a control signal produced by the control module (e.g. See col. 5, lines 38-67; col. 6, lines 1-18).

Regarding claim 20, Huynh further discloses that the purifying mechanism comprises a nitrogen oxides trap (e.g. See col. 5, lines 38-67; col. 6, lines 1-18).

Regarding claims 22 and 26, Huynh further discloses that wherein the control module controls an air intake valve (e.g. See col. 5, lines 38-67; col. 6, lines 1-18).

Regarding claims 23 and 27, Huynh further discloses that the control module controls an air intake valve and at least one fuel injector (e.g. See col. 5, lines 38-67; col. 6, lines 1-18).

Regarding claims 24 and 28, Huynh further discloses that wherein the control module controls at least one fuel injector (e.g. See col. 5, lines 38-67; col. 6, lines 1-18).

Allowable Subject Matter

Claims 21 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Since allowable subject matter has been indicated, applicant is encouraged to submit **Final Formal Drawings (If Needed)** in response to this Office action. The early submission of formal drawings will permit the Office to review the drawings for acceptability and to resolve any

informalities remaining therein before the application is passed to issue. This will avoid possible delays in the issue process.

Response to Arguments

Applicant's arguments filed November 09, 2006 have been fully considered but they are not completely persuasive. ***Claims 11-28 are pending.***

Applicant's cooperation in explaining the claims subject matter more specific to overcome the claim rejection is appreciated.

Applicant's arguments with respect to claims 11-28 have been considered but are moot in view of the new ground(s) of rejection as discussed above.

Applicant's amendment (Claims 11-28) necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP, 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire THREE MONTHS from the date of this action. In the event a first response is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than SIX MONTHS from the date of this final action.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Binh Tran whose telephone number is (571) 272-4865. The examiner can normally be reached on Monday-Friday from 8:00 a.m. to 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reach on (571) 272-4859. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BT
January 31, 2007



Binh Q. Tran
Patent Examiner
Art Unit 3748